

WHAT IS CLAIMED IS:

1. A pointing device comprising:

an elastic plate having a plurality strain resistant elements disposed on a lower surface of the elastic plate, a plurality of terminal electrodes disposed on the lower surface of the elastic plate, and a manipulation post arranged to extend from a center of an upper surface of the elastic plate, the plurality of terminal electrodes being electrically connected to the plurality of strain resistant elements; and

a base plate on which the elastic plate is mounted and which supports an outer periphery of the elastic plate, the base plate being arranged with a predetermined gap with respect to the lower surface of the elastic plate and having a plurality of connecting lands electrically connected to the plurality of terminal electrodes;

the elastic plate having a perforation or notch in at least one position thereof, the perforation or notch being arranged such that a pin can be inserted therein; and

the elastic plate having a plane shape which is not rotation-symmetric.

2. A pointing device according to Claim 1, wherein the elastic plate has perforations or notches in at least two positions thereof, the perforations or notches being arranged such that pins can be inserted therein.

3. A pointing device according to Claim 1, wherein the base plate is provided with a perforation or notch which can receive a pin when the pin is inserted through the perforation or notch of the elastic plate mounted in a predetermined position.

4. A pointing device according to Claim 1, wherein the base plate has a concavity formed in the upper surface thereof and the elastic plate is mounted in the concavity.

5. A pointing device according to Claim 1, wherein the elastic plate is made of one of zirconia, a zirconia-type, and yttrium-stabilized zirconia ceramic.

6. A method of producing a pointing device defined in Claim 1 comprising a step of forming the strain resistant elements and the terminal electrodes while a pin is inserted through the perforation or notch formed in the elastic substrate, so that the elastic plate is positioned.

7. A method of producing a pointing device defined in Claim 6, comprising a step of mounting the elastic plate on the base plate while the pin is inserted through the perforation or notch formed in the elastic plate and through the perforation or notch formed in the base plate, so that the elastic plate and the base plate are positioned with respect to each other.

8. A pointing device according to Claim 1, wherein the base plate includes a metallic plate;

the metallic plate includes a flexible wiring substrate disposed on an upper surface of the metallic plate and the plurality of connecting lands disposed on the upper surface of the metallic plate, the elastic plate being mounted on the metallic plate via the flexible wiring substrate;

the plurality of terminal electrodes and the plurality of connecting lands are arranged in a circle and are electrically connected to each other via an electroconductive bonding-material;

the predetermined gap is formed between the lower surface of the elastic plate and the upper surface of the flexible wiring substrate; and

the elastic plate can be deformed due to the predetermined gap.

9. A pointing device according to Claim 8, wherein the electroconductive bonding material is solder which is applied by re-flowing.

10. A pointing device comprising:

an elastic plate having a plurality of strain resistant elements disposed on a lower surface of the elastic plate, a plurality of terminal electrodes disposed on the lower surface of the elastic plate, and a manipulation post arranged to extend

from a center of an upper surface of the elastic plate, the plurality of terminal electrodes being electrically connected to the plurality of strain resistant elements; and

a base plate on which the elastic plate is mounted and which supports an outer periphery of the elastic plate, the base plate being arranged with a gap with respect to the lower surface of the elastic plate and having the plurality of connecting lands electrically connected to the plurality of terminal electrodes; and

the base plate having a concavity formed therein, the elastic plate being mounted in the concavity.

11. A pointing device according to Claim 10, wherein the base plate includes a metallic plate;

the metallic plate includes a flexible wiring substrate disposed on an upper surface of the metallic plate and the connecting lands disposed on the upper surface of the metallic plate;

the metallic plate has the concavity formed on the upper surface of the metallic plate;

the metallic plate has a convexity formed on the lower surface thereof in a position corresponding to the concavity;

the flexibility wiring substrate is arranged to extend in the concavity; and

the elastic plate is mounted in the concavity via the flexible wiring substrate.

12. A pointing device according to Claim 11, further comprising a support for supporting the metallic plate from a lower surface side thereof, the support has a hole or concavity which receives the convexity of the metallic plate.

13. A pointing device according to Claim 10, wherein the elastic plate has a perforation or notch formed in at least one position thereof, the perforation or notch being arranged such that a pin can be inserted through the perforation or notch.

14. A pointing device according to Claim 13, wherein the base plate is provided with a perforation or notch which can receive a pin when the pin is inserted through the perforation or notch of the elastic plate mounted in a predetermined position.

15. A pointing device according to Claim 13, wherein the elastic plate has perforations or notches in at least two positions thereof, the perforations or notches being arranged such that pins can be inserted therein; and
the elastic plate has a plane shape which is not rotation-symmetric.

16. A pointing device according to Claim 8, wherein the elastic plate is made of one of zirconia, a zirconia-type, or yttrium-stabilized zirconia ceramic.

17. A pointing device according to Claim 1, further comprising an overcoat layer covering the strain resistant elements and not covering main portions of the terminal electrodes.

18. A pointing device according to Claim 8, wherein the metallic plate is made of iron or an iron alloy.

19. A pointing device according to Claim 18, wherein a surface of the metallic plate is anti-rusting-treated.

20. A pointing device according to Claim 8, wherein the metallic plate includes at least two fixing holes; the at least two fixing holes include a first and a second fixing hole having a longer size in one direction thereof; and the longer size direction of the first fixing hole is substantially perpendicular to the longer size direction of the second fixing holes.